

XXXI.—*Description of a new Species of the Genus Trichoplus (Coleoptera, Cremastochilidae).* By CHARLES O. WATERHOUSE.

Trichoplus cordicollis.

Valde oblongus, niger; thorace cordiformi, disco excavato; elytris oblique striatis, singulatim carina longitudinali suturæ proxima et parallela instructis.

Long. $4\frac{1}{2}$ lin.

Very near to *T. Schaumii*, Westw. (Thesaurus, p. 33, pl. ix. fig. 10), but at once distinguished by the thorax being cordiform instead of orbiculate. The thorax is closely and strongly punctured, especially at the posterior border of the discoidal excavation; the base itself is not punctured. Scutellum striolate. Elytra parallel for two thirds their length, then a little narrowed to the apex, which is obtuse; sutural region flat, obliquely vermiculate-striolate, the flattened region bounded on the outer side by a carina which does not extend to the apex. Towards the side there is an indication of a second carina, the surface between the dorsal carina and the sublateral one less obliquely striolate; some very fine striolæ may also be traced on the sides; the apex is dull and has some very fine elongate punctures. The abdomen has some deep, elongate, longitudinal punctures on each side of the middle of the four basal segments. Pygidium transversely quadrate, opaque. All the tibiæ are simple; but the posterior are shorter and broader than in *T. Schaumii*.

Hab. Zulu.

BIBLIOGRAPHICAL NOTICE.

A Handbook of the Vertebrate Fauna of Yorkshire, being a Catalogue of British Mammals, Birds, Reptiles, Amphibians, and Fishes, showing what Species are or have, within Historical Periods, been found in the County. By W. EAGLE CLARKE and W. DENISON ROEBUCK. Svo. London: Reeve, 1881.

THE title of this book, as given above, renders it almost unnecessary for us to say any thing about the general nature of its contents. It is, as stated, a complete catalogue of the recognized British species of Vertebrata, with certain details with regard to the mode of occurrence and distribution of those which have occurred, or been asserted to occur, within the limits of the great northern county. Those species which have undoubtedly become extinct in Britain are inserted without numbers, and their names printed in old English characters; only two species which have usually been included in the British lists are omitted—namely the beech-marten (*Martes foina*),

on the authority of the late Mr. E. R. Alston, and the right whale (*Balaena mysticetus*), on the ground of want of evidence, its supposed occurrence on the British coasts never having been recorded since the distinction was established between that species and *B. biscayensis*, which is certainly known to visit the British seas.

One is not much surprised to find that Yorkshire, the largest of British counties, embraces in its terrestrial fauna (including, of course, the inhabitants of the fresh waters) a very great majority of the British Vertebrates. Thus we find that it possesses 32 out of 45 terrestrial mammals, 4 out of 7 reptiles (and one of the others is British only because it inhabits the Channel Islands), 6 out of 7 amphibians, and 32 out of 53 freshwater fishes. With regard to the birds there would be some difficulty in drawing a distinction between marine and freshwater species; but taking the whole class we find Yorkshire boasting of no fewer than 307 species out of a total of 380.

That the county should be so exceedingly rich is easily explained when we consider its physical characters. It is not only the largest county in Britain, but it possesses a variety of geological structure, and consequently of surface, such as no other county can boast. In its western parts the old palæozoic rocks form an elevated country, rising here and there into actual mountain masses, and reaching in the north-west, towards the borders of Westmoreland, an elevation of some 2600 feet above the level of the sea; and from this lofty region the most beautiful and romantic dales sweep down towards the rich pasture-lands of the Craven district and the Vale of York. Southwards these older rocks form wild high moorlands, stretching away to the borders of Derbyshire. The great central plain, formed chiefly by the Vale of York, although chiefly covered up by clays and gravels, nevertheless presents a considerable variety of surface, and especially some interesting remains of the old forest of Galtres, which formerly spread over its whole northern part, extending up to the very walls of York, and harbouring in its recesses the wolf, the wild boar, and the red deer. In the north-east the Cleveland and Hambleton hills offer high ground of a totally different character from the old mountain-region of the west; and separated from these by the Vale of Pickering, we have the Chalk Wolds, with quite another character of scenery. Between the chalk and the sea again come the low grounds of Holderness. In a region of such diversified character, with an abundance of both wild and cultivated ground, it is no wonder if the terrestrial fauna is very extensive; and the coast-line, which stretches for nearly 120 miles from the mouth of the Tees to Spurn Point, offers in its lofty cliffs the most favourable conditions of existence for many species of sea-birds, whilst others find congenial haunts on the sandy shores of Holderness. Further, as our authors remark, the situation of Yorkshire, nearly in the middle of Britain, gives it an advantage with regard to migratory birds, some southern species finding here their northern boundary, while certain northern immigrants are not known to advance further to the south.

The only point in which Yorkshire shows to a disadvantage in

this catalogue is the class of fishes—out of a total of 249 recorded British species, only 148 are known to occur in the county and the sea that washes its coast. Eighty species of marine fishes which occur somewhere in the British seas are unknown on the Yorkshire coast; some of these will probably turn up hereafter; many of them are scarce fishes, which have occurred only once or twice anywhere round our coasts, or species of southern type which can hardly be expected to find their way so far north.

On the whole, Yorkshire has good reason to be proud of its vertebrate fauna; and the authors of this catalogue may with equal justice take a pride in their work, which has evidently been executed with most conscientious care. As already stated, it includes the whole British vertebrate fauna; and the Yorkshire species are indicated by having appended to their names brief statements relating to their occurrence in the county, including the localities where specimens have been obtained in the case of the rarer species, and frequently an indication of the museums in which known Yorkshire specimens are preserved. The authors have given a short introductory exposition of the principles by which they have been guided in the performance of their task, followed by an excellent brief sketch of the physical aspects of Yorkshire, and a summary of the results of their investigation of its Vertebrata. The little book is a most valuable contribution to British zoological literature; and the authors could not have paid a more graceful compliment to the British Association in its year of jubilee than by dedicating it, as they have done, to Sir John Lubbock, as President of the Association at the York meeting.

MISCELLANEOUS.

On the Origin of the Ovum in the Hydroids.

By M. A. DE VARENNE.

UNTIL lately it was supposed that the ova and spermatozooids of the Hydroids are developed in the interior of the gonophores, medusoid buds, and Medusæ; and, in fact, these individuals are regarded as representing the sexual generations of these animals. Various opinions even have been put forward with regard to the endodermic or ectodermic origin of the sexual elements in these gonophores. M. Goette, however, in a memoir on *Hydrella*, published in 1880, showed that, in that species, the ova attain their complete development in the stem instead of being conveyed into a gonophore; and in the same year M. Weismann observed that, in *Plumularia echinulata*, the sexual elements are developed in the stem and afterwards pass into the gonophore; and he has recently demonstrated the same fact with regard to the ova in the genus *Eudendrium*.

Simultaneously with these two authors, but without any knowledge of their labours, I busied myself with the same question last summer at the laboratory at Roscoff; and the following are the results to which my observations have led me.

In *Campanularia flexuosa* the ova are met with in the endoderm
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